**Additional Practice Problems - Unit 4 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\*\*\* Complete the following questions on a piece of notebook paper. You will need to show the completed problems to me before I allow you to retake the quiz!**

**Quiz #1 – What are Ions?**

1. What is an ion?
2. Why do ions form?
3. When an atom loses electrons, it becomes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. When an atom gains electrons, it becomes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. Which group of elements is unreactive and why?
5. Give the charge and explain how it was obtained for each of the following elements:
   1. Phosphorous:
   2. Magnesium:
   3. Oxygen:
   4. Fluorine:

**Quiz #2 – Names & Formulas of Binary Ionic Compounds**

1. What is the formula of calcium nitride?
2. What is the name of KO?
3. What is the formula of sodium phosphide?
4. What is the name of BaCl2?

**Quiz #3 – Polyatomic Ions**

\*\* Study your note cards before you retake!

**Quiz #4 – Names & Formulas of All Ionic Compounds**

1. Write the name for the following ionic compounds:
   1. Li2CO3
   2. Mg(OH)2
   3. KC2H3O2
   4. FeCl2
   5. ZnO
2. Write the formula for the following ionic compounds:
   1. Iron (II) phosphide
   2. Aluminum cyanide
   3. Chromium (II) phosphate
   4. Barium sulfate
   5. Potassium oxide

**Quiz #5 – Ionic, Covalent, & Metallic Properties**

1. Describe the arrangement of ions in an ionic compound.
2. Describe the arrangement of cations and electrons in a metallic solid.
3. List 4 properties of ionic compounds.
4. List 4 properties of covalent compounds.
5. List 4 properties of metallic solids.